The Generic Affinity of *Echidnium spruceanum* Schott and Its Placement in *Dracontium* (Araceae)

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ABSTRACT. *Echidnium spruceanum* Schott is transferred to *Dracontium* as *D. spruceanum* (Schott) G. Zhu. The original observation of unilocular ovaries with two ovules per locule on the holotype is here considered to have been erroneous. *Dracontium carderi* Hooker f., *D. costaricense* Engler, *D. trianae* Engler, *D. loretense* K. Krause, and *D. ornatum* K. Krause are placed in synonymy under *D. spruceanum*. A lectotype is designated for the name *D. trianae*.

A year after Schott (1857) described the monotypic genus *Echidnium*, based on *E. schomburghii*, he described a second species, *E. spruceanum* (Schott, 1858). He asserted that *E. spruceanum* differs from *Dracontium* in having unilocular ovaries with two ovules. Based on these same characters, Engler (1878: 118) transferred this species to *Cyrtosperma*. It has since remained in *Cyrtosperma*, although Engler (1889: 124) transferred the genus *Echidnium* to *Dracontium* as *Dracontium* sect. *Echidnium* Engler. The type of *E. spruceanum* has a three-parted, highly subdivided leaf typical of *Dracontium*, but not of *Cyrtosperma*, which has simple hastate to sagittate leaves. Hay (1988: 457) referred *E. spruceanum* to *Dracontium*, based on his notion that the number of ovarian locules cannot be used as a generic character in this group, but he did not make a new combination. Based on the same assumption, Bogner (1985) accepted *Echidnium* in the synonymy of *Dracontium* and made a new combination, but the species *E. spruceanum* was not discussed.

Spruce 2406 (K) is apparently the single element studied by Schott (1858) when he described *E. spruceanum*, and thus it is the holotype of the name. This specimen was annotated by Schott, although no collector and number but only the herbarium ("Herb. Hook.") were cited in the protologue.

The supposedly unilocular ovary of *Echidnium spruceanum* may be spurious. Because of the underdeveloped spadix and the poor condition of the specimen, ovary characters cannot be evaluated from the holotype (Richard Keating, pers. comm.). The holotype agrees overall with the genus *Dracontium* as noted above, and there is no doubt that this species should be properly placed in *Dracontium*. Unilocular ovaries do not occur in *Dracontium* and this genus never has more than one ovule in each locule (Zhu, 1995). Specimens clearly conspecific with *Spruce 2406* never have unilocular ovaries nor two or more ovules per locule. The original observation of unilocular ovaries with two ovules per locule on the holotype is here considered to have been erroneous. Epitypification is not necessary because identification of this species does not depend on ovarian characters (Greuter et al., 1994).

Dracontium spruceanum, as here circumscribed, is the most widely distributed species in the genus. It ranges from the Talamanca lowands on the Atlantic slope of Costa Rica to the Chocó region on the Pacific slope of Colombia, and throughout the Amazonian portions of Colombia, Ecuador, Peru, and Brazil. This species can be identifed by its long peduncle, erect to slightly arching spathe, which is gradually acuminate above and has its margins broadly overlapping near the base, and by its translucent area of the inner spathe surface two to four times higher than the spadix (Zhu, 1995).

Subsequent to Schott's (1858) original publication, *Dracontium spruceanum* was redescribed five times, as *D. carderi* Hooker f., *D. costaricense* Engler, *D. trianae* Engler, *D. loretense* K. Krause, and *D. ornatum* K. Krause. These names have been frequently used for specimens from different localities.

The foregoing names are for the first time here placed in synonymy under *Dracontium spruceanum*, the nomenclature of which may be summarized as follows:

Dracontium spruceanum (Schott) G. Zhu, comb. nov. Basionym: *Echidnium spruceanum* Schott, Oesterr. Bot. Z. 8: 350. 1858. *Cyrtosperma spruceanum* (Schott) Engler in Mart., Fl. bras. III. 2: 118. 1878. TYPE: Brazil. Amazonas: São Gabriel, *Spruce 2406* (holotype, K).

Dracontium carderi Hooker f., Bot. Mag. t. 6523. 1880. Syn. nov. TYPE: Cultivated plant at Royal Botanical Gardens, Kew, originally collected by Carder in Co-

lombia, exact locality unknown, April 1879, *Brown s.n.* (holotype, K 3 sheets).

Dracontium costaricense Engler, Pflanzenr. IV. 23C (Heft 48): 44. 1911. Syn. nov. TYPE: Costa Rica. Limón: Talamanca, forest of Shirores, 100 m, *Pittier 9232* (holotype, B; isotype, BR).

Dracontium trianae Engler, Pflanzenr. IV. 23C (Heft 48): 44. 1911. Syn. nov. TYPE: Colombia. Meta: Villavicencio, 400 m, *Triana 691* (lectotype, here designated, BM; isolectotype, COL).

Dracontium loretense K. Krause, Notizbl. Bot. Gart. Berlin-Dahlem 11: 617. 1932. Syn. nov. TYPE: Peru. Loreto: lower Río Huallaga, 155–210 m, Oct.–Nov. 1929, *Williams 5144* (holotype, F; isotype, US).

Dracontium ornatum K. Krause, Notizbl. Bot. Gart. Berlin-Dahlem 15: 40. 1940. Syn. nov. TYPE: Ecuador. Pastaza: above Mera, 1100 m, 16 Nov. 1938, *Schultze-Rhonhof 2998* (holotype, B, on the same sheet with *Schultze-Rhonhof 3031*).

The protologue of *Dracontium trianae* cited two specimens, *Triana 691* and *Triana 289*. According to the *Code* (Greuter et al., 1994), a lectotype may be selected for this name. *Triana 691* (BM, COL) is the only fertile specimen and is represented in two herbaria; it is therefore designated here as the lectotype. *Triana 289* (BM) thus becomes an excluded syntype.

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